

# CP900 Series for Nucleus<sup>®</sup> 22

In keeping with our commitment to lifelong improvements for our implant family, Cochlear is pleased to offer the Cochlear™ Nucleus CP900 Series Sound Processor upgrade to our Nucleus 22 implant recipients. This upgrade offers a new hearing experience with an all-new microchip designed for innovations today and in the future. This chip builds upon our established SmartSound<sup>®</sup> technology to provide superior programming flexibility and patient performance.

The following is a quick reference for programming CP900 Series Sound Processors with Nucleus 22 implants.

## 1 Order the sound processor

1. Choose the CP910 or CP920 sound processor and desired colour.

With CP900 Series Sound Processors, recipients can now use wireless accessories and Aqua+.

2. Choose the magnet strength.

Magnets are available in strengths 1/2–6M. Order the same magnet strength as currently used, or adjust as needed after checking the implant site and current coil retention.

3. Choose a battery option. For Freedom<sup>®</sup> Sound Processor upgrades, previous battery life (using three zinc air batteries) can help you choose a suitable option. If you are not sure, choose the standard rechargeable option.

Standard rechargeable battery — Recommended for most recipients. Required if the Freedom Sound Processor operates less than about two days (~32 hours).

Two zinc air batteries — Suitable if the Freedom Sound Processor operates about two days (~32 hours) or longer.

Compact rechargeable battery — Not usually recommended for Nucleus 22 recipients.



Cochlear Nucleus CP920 Sound Processor



The Nucleus 22 coil has a green connector for the coil cable

## 2 Before the upgrade

Consider the following information. Discuss as needed with recipients to ensure appropriate expectations.

- Upgrading to a CP900 Series Sound Processor provides a new hearing experience, even if using a familiar program. Recipients may perceive softer sounds than before, and the improved microphones provide a clearer sound quality.
- When upgrading to CP900 Series Sound Processors you can choose whether to offer SCAN with SmartSound<sup>®</sup> iQ (recommended), legacy settings for greater similarity to the original program or provide both.

Give recipients time to acclimate to hearing with their new sound processor. This may take several weeks.

Encourage recipients to try something new. Upgrading to SCAN with SmartSound iQ may improve speech recognition in noisy listening situations.

### 3 Perform the upgrade

Upgrading Nucleus 22 recipients to a CP900 Series Sound Processor does not require you to change threshold and comfort levels. Remember that Nucleus 22 implants do not have telemetry capability, so you will not need to measure electrode impedance.

Follow these steps to perform the upgrade.

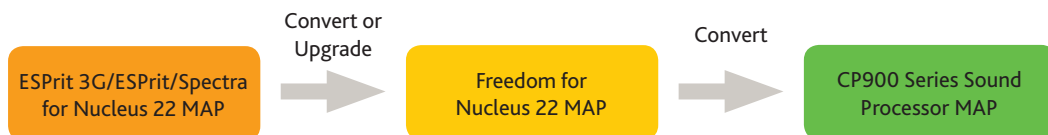
#### Step 1 – Review the original sound processor configuration

Open the most recent session history showing the original sound processor configuration and identify the preferred MAP. For ESPr™ 3G and Freedom Sound Processors, take note of the following:

1. Volume setting.
2. SmartSound/input processing options.
3. Sound processor configuration (e.g., T-coil, audible alerts and other personalisation).

#### Step 2 – Prepare a CP900 Series Sound Processor MAP

ESPr™ 3G, ESPr™ or Spectra Sound Processor upgrades only:  
convert or upgrade to a Freedom Sound Processor MAP

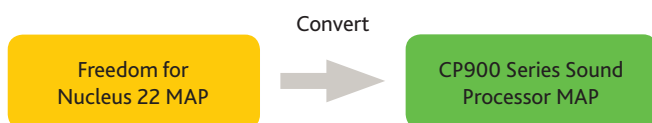


1. Open the preferred ESPr 3G, ESPr or Spectra MAP in Custom Sound® software.
2. Choose whether to upgrade (recommended) or convert the preferred MAP to a Freedom MAP.

Choose **Upgrade** to apply frequency allocation and input dynamic range settings optimised for CP900 Series Sound Processors and to provide additional opportunities for improved hearing performance.

Choose **Convert** to approximate the original settings and maintain a more familiar sound quality.

**All upgrades:** convert to a CP900 Series Sound Processor MAP from the preferred Freedom MAP



1. Open the preferred Freedom MAP in Custom Sound software.
2. Convert the Freedom MAP to CP900 Series Sound Processor MAP.

## Adjust the program settings

1. In the new CP900 Series Sound Processor MAP, open the program settings and check the T-SPL value. If the value is greater than 25 dB, consider reducing it to 25 dB.
2. Check the volume setting, and adjust, if needed, to match the preferred setting from the original MAP.

**Tip:** Reducing the T-SPL value improves audibility of soft sounds.

## Step 3 – Go Live and check comfort

1. Ensure the Nucleus 22 coil is in place on the implant for the skin flap measurement, and then **Go Live**.
2. While still in *Live* mode, check loudness comfort and adjust volume or comfort levels, if needed.

## Step 4 – Configure programs and write to sound processor

### Configure the programs

1. In the Write to processor screen, select the desired SmartSound iQ and sound processor settings for each program. If you decide to personalise the programs, you may want to use one of the following popular examples or choose your own preferences.

Example A	Example B
Program 1: SCAN with SmartSound iQ (default).	Program 1: SCAN with SmartSound iQ (default).
Program 2: Preferred settings from the original sound processor.	Program 2: SCAN with SmartSound iQ with the <b>ASC Less (60dB)</b> option selected and the <b>Background (SNR-NR)</b> option disabled.

**Tip:** If at first some Nucleus 22 recipients find the SCAN program too soft, you should not necessarily disable it right away. Many recipients will adapt to this sensation and may also experience improved speech understanding in background noise when using SCAN with SmartSound iQ.

2. If the recipient uses a CR230 Remote Assistant, select **Allow Sensitivity Control**. If the recipient does not use a Remote Assistant, you may want to adjust the accessory mixing ratios to suit the recipient's needs.

With CP900 Series Sound Processors, some recipients will gain access for the first time to audible or visible alerts, and in-built T-coil and accessory mixing ratios.

### Write to the sound processor

1. Ensure the Nucleus 22 coil is on the implant.
2. Click the **Write** button.
3. Confirm battery suitability, as displayed in Custom Sound software.

**Note:** Remember to inform the recipient of expected battery life with the new processor.

## After programming

- If the recipient uses a CR230 Remote Assistant, connect it to Custom Sound software version 4.3 or later to update the Remote Assistant's firmware. You must do this to enable pairing of the Remote Assistant with CP900 Series Sound Processors, when used with a Nucleus 22 coil.
- To pair a CR230 Remote Assistant or CR210 Remote Control with a CP900 Series Sound Processor while using a Nucleus 22 coil, turn on the sound processor first, and then pair it with the remote assistant **within 25 seconds**.
- Help recipients conserve battery power by explaining the following:
  - Attaching battery modules turns on the sound processor automatically, so recipients should remove the batteries or battery module when not in use.
  - Removing the coil from the implant does **not** turn off the sound processor automatically; consider switching it off before removing the coil.

**Important!** Update the CR230 Remote Assistant's firmware, if applicable.

**Note:** Because Nucleus 22 implants do not support telemetry, the sound processor auto off function is not available for these recipients.

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